Collaborative Environment
Breakout Session

Objective:

Identify *applications* of new and innovative M&S technologies for SMART, with a focus on development of Collaborative Environments to support simulation based research, design, development, acquisition, manufacturing, fielding, and sustainment

Presentations:

Simulation Assessment Validation Environment (SAVE)
Ms. Marcia Herndon and Mr. Paul Cole, Lockheed Martin Aeronautical Systems

Integrated Helicopter Design Tools (IHDT)
Mr. John Barber, Bell Helicopter and Mr. Don Merkely, U.S. Army AMCOM

Collaborative Virtual Environments for SMART Processes -- SimTLC Challenge
Dr. Grace Bochenek, U.S. Army TACOM

Virtual Design and Sustainment Environment (VDASE) in Support of Simulation Based Acquisition
Mr. Kevin Johnston, U.S. Army PM Utility Helicopter Office

New Software Technologies and Impact on the Simulation Biome
Mr. Tom Strelich, Illgen Simulation Technologies, Inc. and Mr. Greg Tackett, U.S. Army AMCOM

National Tele-immersion Initiative

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Breakout Group Composition:

Government: 34

AMSO		
DISC4	PEO Tactical Missiles	
TACOM	PEO Aviation Support Comanche	
Natick Soldier Center		PM Firefinder
AMRDEC	PM Utility Helicopters	
ARL	PM TRADE	
ERDC	PM Abrams	
STRICOM	USA Threat Systems Mngt Offfice	
AMSAA	USAF/ESC SBA Manager	
YPG	NAVAIRSYSCOM	
CECOM	DMSO	

Industry: 28

Lockheed Martin	ISTI	Boeing
Software Eng Institute	EDS	IITRI
Multigen-Paradigm	IMC	SAIC
eGAD Software, LLC	Global Majic	United Defense
Dynacorp I&ET, Inc	Virtual Prototypes	Teledyne Brown
Primex Technologies	CSC Advanced	Marine

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Key Points Discussed:

- **Range of successful applications plus M&S enabling Technologies**
  - **R&D - SimTLC / CAVE**
  - **Integrated Web-Based Design - IHDT**
  - **Collaborative Biome**
  - **Virtual Manufacturing - SAVE**
  - **Maintenance & Log Mngt - VDASE**
  - **Internet 2 Project**
- **Collaborative Environments more readily developed / most effective for focused project applications**
- **Applications benefiting from Collaborative Environments**
  - **Blackhawk Modernization**
  - **Joint Strike Fighter**
  - **FCS**
- **Government and Industry partnerships enhance the**

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Issues for Leadership Consideration:

- **Complexity: No Single Collaborative Environment**

Platforms	Fidelity	Applications
Languages	Runtime Dynamics	Organizations
Locations	Integration Standards	Cultures

- **Infrastructure: "Interstate Highway Analogy"**
  - Who "owns" the problem of developing Collaborative Environments?
- **Incentives:**
  - Near Term Return on Investment
- **Proprietary Data Rights:**
  - Protection of IPR in Collaborative Environments
- **Security:**

Policy	Performance
Technology	Confidence

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Recommendations:

- **Complexity**:
  - Start with small, manageable domains of Collaborative Envrinments
  - Develop incrementally & iteratively - “build and break”
- **Infrastructure**:
  - Identify opportunities to form Partnerships / Cost Sharing
  - Avoid duplication - COTS, Commercial Standards, etc.
  - Develop customer base
- **Incentives**:
  - Maintain data, e.g. cost avoidance
  - Publish success stories
- **Proprietary Data Rights**:
  - Minimum data requirements where possible - e.g. performance vs design
  - Security where necessary
- **Security**: